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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/168,688	10/09/1998	YOSHITAKA SHIMURA	837.1186/JDH	2794
21171	7590	12/29/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			SINGH, DALZID E	
			ART UNIT	PAPER NUMBER
			2633	

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/168,688

Applicant(s)

SHIMURA ET AL.

Examiner

Dalzid Singh

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-21 and 23-44 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 2-21 and 23-42 is/are allowed.  
6) ☒ Claim(s) 43 and 44 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 43 and 44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 43 and 44 recites, "wherein said light source keeps outputting said light beam when said shut-down device receives said wavelength alarm relating to a wavelength of the light beam." However, in the specification, on page 20, lines 14-24, when wavelength deviates from tolerance, the optical shut-down circuit shuts down the optical output from the optical sender (see also page 7 of Remark filed 14 January 2003). There is no structure or circuit diagram to teach a person of ordinary skill in the art how "said light source keeps outputting said light beam when said shut-down device receives said wavelength alarm relating to a wavelength of the light beam" Therefore, the specification fails to provide enabling disclosure for claims 43 and 44.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 43 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Udd (US Patent No. 5,455,698) in view of Roberts (US Patent No. 6,031,647).

Regarding claims 43 and 44 (as far as understood), Udd discloses communication alarm system, as shown in Fig. 25, comprising:

light source (2507) outputting a light beam;

an optical modulator (2541) modulating the light beam in accordance with a main signal to output an optical signal (in col. 19, lines 36-38, Udd discloses that the phase modulator is used to impress data onto the light beams; data can be considered as the main signal); and

a shut-down device shutting down the optical signal when receiving a wavelength alarm relating to a wavelength of the light beam (as shown in Fig. 25 and discussed in col. 20, lines 13-18, Udd teaches that the controller (2533) receives a signal from the alarm system (2531) to shut down the light source (2507); therefore since the controller can shut down the light source, the controller can be considered as the shut down device).

Udd discloses light source (2507) for sending out light beam, therefore the location of the light source (2507) can be considered as optical sender and hence, as

shown in Fig. 25, the signal generated by alarm system (2531), which can be considered as alarm signal, is provided inside the optical sender.

Udd differs from the claim invention in that Udd does not disclose wherein said light source keeps outputting said light beam when said shut-down device receives said wavelength alarm relating to a wavelength of the light beam. Roberts is cited to show power control in optical transmission system in which the power can be gradually reduced (see col. 5, lines 30-45 and col. 6, lines 61-65). Gradually reducing the power would allow the optical source to keep outputting the light beam. Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the controller of Udd such that power is gradually reduce in order for the optical source to keep outputting light beam when said shut-down device receives said wavelength alarm relating to a wavelength of the light beam. One of ordinary skill in the art would have been motivated to do this in order to vary the amount of power output from the optical source or laser.

5. Claims 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazaki et al (US Patent No. 6,040,931) in view of Miyachi et al (US Patent No. 5,920,414) and further in view Roberts (US Patent No. 6,031,647).

Regarding claims 43 and 44 (as far as understood), Miyazaki et al disclose optical communication system comprising:

light source (OS) outputting a light beam (see Fig. 1);

an optical modulator modulating the light beam in accordance with a main signal to output an optical signal (in col. 1, lines 40-43, Miyazaki et al disclose that modulator are within the optical transmitter, which modulate the signal to output optical signal); and a shut-down device (shown in Fig. 3, Miyazaki et al show shut-off unit (26)) shutting down the optical signal).

Miyazaki et al disclose judgment unit and monitoring unit for comparing and determining if the signal's parameter is within allowable range and shut off the optical signal if the range is outside the allowable limits (see col. 4, lines 30-52 and col. 7, lines 8-18, 41-47). Miyazaki et al differ from the claimed invention in that Miyazaki et al do not specifically disclose receiving a wavelength alarm relating to a wavelength of the light beam and that the wavelength alarm being provided inside the optical sender. However, generating an alarm signal when abnormality occurs or when the signal is not within an allowable range is well known. Miyachi et al is cited to show such well known concept. In col. 10, lines 45-50 and col. 13, lines 23-27, Miyachi et al disclose generating an alarm when the voltage dropped below the reference voltage (or the voltage is not within the allowable range). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the system of Miyazaki et al by providing means to transmit an alarm signal if the signal is not within an allowable range as taught by Miyachi et al. For example, as shown in Fig. 3 of Miyazaki et al, the alarm could be provided at the optical transmitter (sender), within the judgment unit or before the shut-off unit. One of ordinary skill in the art would have

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been motivated to provide alarm in order to alert operator of any abnormality occurring in the system so that appropriate measure can be taken to correct that abnormality.

Furthermore, the combination of Miyazaki et al and Miyachi et al differs from the claim invention in that the combination does not disclose wherein said light source keeps outputting said light beam when said shut-down device receives said wavelength alarm relating to a wavelength of the light beam. Roberts is cited to show power control in optical transmission system in which the power can be gradually reduced (see col. 5, lines 30-45 and col. 6, lines 61-65). Gradually reducing the power would allow the optical source to keep outputting the light beam. Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the system of the combination such that power is gradually reduce in order for the optical source to keep outputting light beam when said shut-down device receives said wavelength alarm relating to a wavelength of the light beam. One of ordinary skill in the art would have been motivated to do this in order to vary the amount of power output from the optical source or laser.

#### ***Allowable Subject Matter***

6. Claims 2-21 and 23-42 are allowed.

#### ***Response to Arguments***

7. Applicant's arguments with respect to claims 43 and 44 have been considered but are moot in view of the new ground(s) of rejection.

**Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalzid Singh whose telephone number is (571) 272-3029. The examiner can normally be reached on Mon-Fri 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DS  
December 27, 2005

*Dalzid Singh*